No. 2015-1066

IN THE
United States Court of Appeals
FOR THE FEDERAL CIRCUIT

COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANISATION,

Plaintiff-Appellee,

v.

CISCO SYSTEMS, INC.,

Defendant-Appellant.

ON APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF TEXAS, CASE NO. 6:11-CV-00343, CHIEF JUDGE LEONARD DAVIS

BRIEF OF *AMICUS CURIAE* QUALCOMM INCORPORATED IN SUPPORT OF AFFIRMANCE

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April 13, 2015

CERTIFICATE OF INTEREST

Pursuant to Rules 26.1 and 29(c)(1) of the Federal Rules of Appellate Procedure and Rule 47.4(a) of this Court's Rules, counsel for *amicus curiae* Qualcomm Incorporated certifies the following:

1. The full name of every party or *amicus* represented by me is:

   Qualcomm Incorporated

2. The name of the real party in interest (if the party named in the caption is not the real party in interest) represented by me is:

   N/A

3. All parent corporations and any publicly held companies that own 10 percent or more of the stock of the party or *amicus curiae* represented by me are:

   None

4. The names of all law firms and the partners or associates that appeared for the party or *amicus* now represented by me in the trial court or agency or are expected to appear in this Court are:

   Roger G. Brooks, Cravath, Swaine & Moore LLP

Dated: April 13, 2015

by */s/ Roger G. Brooks*
Roger G. Brooks

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INTEREST OF *AMICUS CURIAE*

Qualcomm Incorporated ("Qualcomm") submits this *amicus curiae* brief because Qualcomm has a critical interest in the proper interpretation and application of the law relating to damages for infringement of patents, including standard-essential patents ("SEPs"), as well as extensive familiarity with standard-setting organizations ("SSOs") and the licensing of SEPs and other patents.[1] Qualcomm is a leading innovator in the cellular communications industry. Early in its life, Qualcomm pioneered the use of code division multiple access ("CDMA") technology for the transmission of cellular communications. CDMA came to be the basis of all so-called "3G" cellular standards. Through licensing, Qualcomm has made its countless 3G innovations widely available to all participants in the cellular industry, and in return receives royalties and other consideration from its licensees. Qualcomm has reinvested billions of dollars of its licensing revenues to research and invent new technologies. As a result, Qualcomm has also been one of the principal developers of the

[1] All parties to this appeal have consented to the filing of this brief. No party's counsel authored this brief in whole or in part. No party, party's counsel, or other person (other than Qualcomm) contributed money that was intended to fund the preparation or submission of this brief. *See* Fed. R. App. P. 29(c)(5). Qualcomm has no interest in the particular outcome of this case.

"4G" technology that forms the basis for the long-term evolution ("LTE") cellular standards now deployed in the United States and elsewhere around the world.

As the pioneer of CDMA and an extensive contributor to LTE, Qualcomm has developed an industry-leading portfolio of technologies that are protected by both SEPs and non-essential patents, consisting of approximately 53,000 patents worldwide, with some 48,000 patent applications pending. Qualcomm continues to invest roughly 20 percent of its annual revenues in R&D (amounting last year to approximately $5.5 billion).

Throughout these endeavors, Qualcomm was a risk-taker. Qualcomm risked its future on the superiority of CDMA as a fundamental technology for cellular at a time when industry experts scoffed at the idea. While investing billions of dollars in researching and developing technology that contributed to the success of 2G, 3G, and 4G cellular systems worldwide, Qualcomm has made much of its valuable IP available for inclusion in standards. Qualcomm has also licensed its portfolio to essentially all major handset manufacturers worldwide; Qualcomm has hundreds of 3G licensees and more than one hundred 4G licensees.

Licensing fees and royalties account for approximately 30 percent of Qualcomm's revenues. If those revenues did not exist or were substantially lower, Qualcomm could not have made, nor continue to make, risky investments in R&D at anything like the levels needed to develop next-generation cellular technologies.

However, Qualcomm is not only a research and licensing company. It is also the world's leading supplier of the wireless communications chips that are the heart of a cell phone. As a very large technology product company, Qualcomm is also a licensee, requiring licenses from others in the industry. Qualcomm's dual position as a major licensor and major licensee gives it an unusual and balanced view into the operation and importance of reasonable royalties, and licensing generally, within standards-dependent industries.

In addition, Qualcomm has been an exceptionally active participant in numerous SSOs for many years, including the Institute of Electrical and Electronics Engineers ("IEEE"), the European Telecommunications Standards Institute ("ETSI"), and others. As a result, Qualcomm has played a central role over the course of many years, and in connection with many different standards, in the intense and highly competitive process of inventing and then selecting technologies for wireless

and cellular standards—a process that is intended, and in fact designed, to achieve industry consensus around the very best inventions.

Qualcomm submits this brief in the hope that its perspective, based on its deep experience in developing, selecting, licensing, and practicing important standardized technologies, will be helpful to the Court in resolving the issues before it.

Atheros, a Wi-Fi technology company acquired by Qualcomm in 2011, was previously accused by CSIRO of infringing the same patent that is at issue in the present case, CSIRO's patent 5,487,069 ("the '069 patent"). That litigation has since settled. In defending that litigation, Atheros introduced factual evidence concerning the value of the '069 patent and contended that the appropriate royalty base for calculating a "reasonable royalty" for the '069 patent was the Wi-Fi chip itself. In this *amicus* brief, Qualcomm does not take or advocate any position with respect to the value or royalty base appropriate to this particular patent. Instead, we address only general principles governing the calculation of "reasonable royalty" infringement damages, and Cisco's novel attempt to transform the SSPPU damages calculation methodology—which is appropriate in *some* procedural and factual contexts—into an absolute and substantive rule to be imposed on *all* procedural and factual contexts.

Qualcomm and Atheros held licenses to the ’069 patent until its expiration, and do not believe that they have any potential liability relating to that patent that depends in any way on the outcome of this appeal.

SUMMARY OF ARGUMENT

In the course of a bench trial to determine “reasonable royalty” damages for infringement of CSIRO’s ’069 patent, the district court rejected Cisco’s contention that such damages *must* be calculated starting from a “royalty base” consisting of the price of certain implementing chips. In its appeal, Cisco (and its *amici*) reassert this contention with an absolutist breadth which, if accepted, would establish a new rule of law restricting *all* reasonable royalty calculations.

The position is not grounded in existing law or sound economics, but is instead motivated by a simple objective: to force “reasonable royalties” for SEPs as close to zero as possible. Cisco does not grapple in detail with how to determine the value of the specific and complex invention that the patent-in-suit covers. Instead it attempts to mis-apply quotes taken from other contexts to construct mechanical rules which, if adopted, would represent a sharp turn away from a market-based definition of a “reasonable royalty” for purposes of infringement damages awards.

Instead, it would impose an economically baseless requirement that a "reasonable royalty" can *only* be calculated using a royalty-base consisting of the "smallest salable patent-practicing unit" (or "SSPPU")—regardless of the nature of the invention and regardless of industry practice with respect to the licensing of such patents. In the process, Cisco ignores this Court's recent reaffirmation that SSPPU is an "evidentiary principle" and a tool to prevent juror confusion—not a substantive component of "reasonableness". What Cisco asks of this Court is nothing less than a forced revolution in both law and industry practice.

In addition, in direct contravention of this Court's instruction in *Ericsson, Inc. v. D-Link Systems, Inc.*, Cisco attempts to invoke the bogey-man of "royalty stacking" without having presented the slightest proof of any real-world "royalty stack" at all. 773 F.3d 1201, 1234 (Fed. Cir. 2014). The attempt, however, is also contrary to fact, law, and the goals of "reasonable royalty" infringement damages. If accepted, this abrupt devaluation of patent damages would reduce incentives for companies like Qualcomm to continue to invest heavily in research and development in standardized industries.

In this brief, Qualcomm explains why Cisco's position is untenable. *First*, there is no necessary economic relationship between the

value of an invention and the *cost* of the component in which that invention is largely practiced. *Second*, there is no need even to consider component prices here, because the SSPPU evidentiary methodology is not needed in this case. The SSPPU safeguard was designed to prevent jury confusion, and has no logical role where, as here, the district court judge set the damages award after a bench trial. More importantly, where there are comparable licenses—the best evidence of what the reasonable royalty should be—the SSPPU safeguard must not be permitted to *overrule* and exclude such real-world evidence. *Finally*, because Cisco has presented no evidence of a royalty stack affecting the accused products, arguments about *hypothetical* royalty stacking should have no role in the damages analysis in this case.

ARGUMENT

I. THERE IS NO NECESSARY ECONOMIC RELATIONSHIP BETWEEN THE VALUE OF AN INVENTION AND THE COST OF A COMPONENT IN WHICH THAT INVENTION IS PRIMARILY IMPLEMENTED.

Cisco and its *amici* urge that the only allowable royalty base for calculating "reasonable royalties" for CSIRO's '069 patent is the Wi-Fi chip—entirely without regard to how industry participants have deemed it appropriate to structure licenses for such patents historically. (*See, e.g.*, Cisco Br. 38–40; Intel Br. 8–9; Apple Br. 12–13.) The argument elevates a

mere evidentiary safeguard over the most fundamental goal of patent damages established by the Supreme Court more than 130 years ago and codified by Congress in the Patent Act—that the patent holder's damages should accurately reflect the value of the patented features. *See Garretson v. Clark*, 111 U.S. 120, 121 (1884). As this Court has recognized:

> "[In i]mplementing the constitutional power under Article I, section 8, to secure to inventors the exclusive right to their discoveries . . . Section 284 . . . instructs that a damage award shall be 'in no event less than a reasonable royalty'; the purpose of this alternative is not to direct the form of compensation, but to set a floor below which damage awards may not fall."

Rite-Hite Corp. v. Kelley Co., 56 F.3d 1538, 1544 (Fed. Cir. 1995) (en banc). Because the true value of an invention—and how and at what level that value is most fully realized and most efficiently measured—is an infinitely varied factual question, rigid and Procrustean rules such as those Cisco proposes are inconsistent with a serious effort to determine what royalty is truly "reasonable".

A. SEPs Are Not Mere "Everyday Building Blocks", but Often Include Immensely Valuable Fundamental Inventions.

Cisco and its *amici* attempt to paint a picture in which the inventions that go into modern complex standards (and perhaps particularly wireless communications standards) are mere "everyday building blocks" (Apple Br. 3)—mundane steps selected "simply because a choice has to be

made" (Cisco Br. 60), and then transmuted by the alchemy of standardization into gold. This picture is a radically incomplete caricature. With respect to enabling inventions at the heart of important standards, it is false.

Of course, some aspects of some standards may reflect trivial choices rather than valuable inventions (for example, should the prongs of electrical plugs be a half-inch apart, or five-eighths of an inch?). But in the case of wireless communications (which include Wi-Fi, cellular, and other technologies), the goal of achieving maximum data rates and reliability within the limited resource of the available radio spectrum has required difficult and costly inventions. It is around such inventions that the relevant standards are built.

The fact that these essential inventions did not come easily—and were very far from "everyday building blocks"—is demonstrated by the history of such standards. The latest Wi-Fi standards can deliver data rates 500 times faster than the first 802.11 Wi-Fi standard released in 1997. The LTE cellular standard delivers data rates 12,000 times faster than the first digital (2G) cellular standards. These transformative improvements are delivered by inventions that are included in the standards and protected by SEPs.

Without these incredible improvements in capacity and speed, smartphones would not be very smart: if they contained cameras, pictures would take unworkable amounts of time to email or post to Facebook. High resolution displays would be of far less value to users, since streaming video would be choppy, delayed, or perhaps impossible. GPS capabilities would be far less useful because maps could not be downloaded to the phone with any speed. Similarly, home Wi-Fi networks would not be able to bring to our computers the high-speed internet connections to which we are now accustomed.

If today's data rates and efficiencies could have been achieved in the earlier standards by snapping together the then-available "everyday building blocks", they would have been. But they *could not* be achieved, because the necessary inventions had not yet been made. Each increment in speed and efficiency has required vast investments in R&D, and has required breakthrough inventions. And each step up in speed and efficiency has delivered immense new value to standards implementers and to consumers. Certainly standardization of these innovations was necessary to enable industry-wide interoperability, but it is the power of the innovations that drives the value of these standards, not the other way around.

Qualcomm will mention MIMO ("multiple-input and multiple-output") as just one example of such a technology. One challenge for all types of radio frequency networks, including Wi-Fi, is that there are inherent limits on the amount of data that can be carried on a given frequency channel between a transmitter and receiver. MIMO techniques, some of which were first theorized at Bell Labs and Stanford University in the 1990s, increase the data carrying capacity of the frequency channel by separating a single high-data-rate information stream into two or more lower-data-rate signals which can then be transmitted from different antennas on the same transmitter. While the multiple signals share the same frequency channel (which ordinarily could cause interference rendering both signals indecipherable), because they take slightly different paths through space, it is possible for the receiver to detect the multiple distinct data streams and recombine them into the original high-data-rate information stream.

The complex techniques for using the spatial dimension to enable transmission of multiple signals on the same frequency channel between a transmitter and receiver were major inventions in the radio frequency world. Indeed, when MIMO was first commercialized in 2001, it was hailed as a pathbreaking technology—"capable of doubling Wi-Fi's

already high speed and extending its range".[2] Once MIMO had been invented, industry participants reworked the Wi-Fi standard to include MIMO in the 802.11n release, so that all standards-compliant devices could take advantage of the revolutionary technology.[3] As one industry observer noted, "The 802.11n standard's most important addition has been the multiple-input multiple-output capability, also known as MIMO."[4] MIMO was a non-obvious and immensely value-creating invention. This was value brought *to* the standard, not value created *by* the mere fact of standardization. MIMO was not an "everyday building block" that was lucky enough to be included in the 802.11n standard "simply because a choice [had] to be made".

Qualcomm here argues no position as to the value of the specific invention covered by the '069 patent. (*See supra* pp. 5–6.) Cisco and its *amici* simply ignore the District Court's factual findings on the value of the '069 patent (A23, A29), but the critical point is not that this patent is

[2] John Markoff, *Start-Up Plans to Introduce Alternate Wi-Fi Technology*, NYTimes.com, (Aug. 18, 2003), http://www.nytimes.com/2003/08/18/business/start-up-plans-to-introduce-alternate-wi-fi-technology.html.

[3] Priya Ganapati, *New Wi-Fi Standard Promises Blazing Fast Data Speeds*, Wired.com (Aug. 7, 2009, 2:55 pm), http://www.wired.com/2009/08/wi-fi-standard/.

[4] *Id.*

factually high value, or for that matter low value. The point is that the effort to *categorically* denigrate SEPs—including patents that enable the very heart of standardized technologies—as mere "everyday building blocks", in order to drive down SEP infringement damages and royalties, is without basis in fact.

B. The Cost of a Wi-Fi Chip Is Unrelated to the Substantial Value of the SEPs It Implements.

Cisco asserts that the chips (which, for the sake of argument, we assume largely implement the infringed claims)—"typically cost $1 to $3 each"—are the only permissible royalty base that a court or jury may use in calculating infringement damages for the '069 patent. (Cisco Br. 38; *see also* Intel Br. 28.) As we discuss in Section II, this is wrong as a matter of law. Here, we note that such an absolute rule would have no rational economic basis.

As the District Court held after analyzing "reliable and tangible" evidence presented by the parties:

> "Basing a royalty solely on chip price is like valuing a copyrighted book based solely on the costs of the binding, paper, and ink needed to actually produce the physical product. While such a calculation captures the *cost* of the physical product, it provides no indication of its actual *value*."

(A23 (emphases added).) CSIRO, the court noted, "did not invent a wireless chip. . . . The benefit of the patent lies in the idea, not in the small amount

of silicon that happens to be where that idea is physically implemented." (A23.)

The court below was correct; there is simply no logical relationship between the *value* provided by intellectual property and the *cost* of the medium in which it happens to be stored, embodied, implemented, or—depending on the nature of the invention and the claims—partially implemented. The court below rightly observed that the cost of paper and binding provides no indication of the value of the book. Other illustrations of the principle are easy to find: the cost of manufacturing a pill may have no relationship to the value (or cost of development) of the pharmaceutical drug it embodies; and the cost of a disk, a USB drive, or even a microprocessor tells us nothing about the value created by the software or other processes it stores or executes. The cost of a blank DVD disk is perhaps $1—but if that disk contains a licensed copy of the Microsoft Windows Operating System, its price is $70. There is nothing suspect or incongruous about this; the value of the one is unrelated to the value (and cost of development) of the other. The same may be equally true of the cost of manufacturing a silicon chip, and the value of intellectual property which may be stored on or implemented by means of that chip. Nor can one expect that the cost of developing that intellectual property will be built into the sale

price of the chip; implementing chips may be manufactured and sold by companies that did not make the investments that resulted in the creation of the intellectual property, and competition from such "low investment" suppliers will cap the market price at which such chips can be sold.

The cost of a particular chip or other component in a wireless device is an inappropriate royalty base with respect to at least many SEPs for the additional reason that inventions which increase the wireless data transmission speed, efficiency, or reliability provided by a standard do not particularly increase the value of the chip; they increase the value of many components of the device, or indeed of the device as a whole. As noted above, a high-resolution screen, a high-resolution camera, a high-speed graphics processor, or high-quality audio capabilities (all valued features in many modern smartphones) would be worth far less to purchasers absent the high wireless data rates and the efficient use of limited network spectrum that enable millions of consumers to speedily download massive video, videogame, and music files, and speedily upload photographs. Where an invention increases or enables the value of many aspects of a complex device, it may be not only reasonable, but the *most* economically reasonable choice, to use the price of the whole device as the royalty base from which to calculate "reasonable royalty" damages.

On the other hand, if the patent concerns an improvement to chip fabrication techniques, then the cost of the chip, without regard to the entire device, may be the most reasonable base for purposes of a "reasonable royalty" calculation. The point is that the facts matter. The nature of the invention, the nature of the claims, and the value conferred by the innovation ought to be examined on the facts, not according to a constrictive rule that ignores the facts.

C. In Many Industries, Including the Cellular Industry, the Price of a Complete Device Has Long Been Accepted as the Appropriate Royalty Base for Licenses to SEPs.

The logic reviewed above is strongly confirmed by the objective *fact* that over many years, many licensors and licensees negotiating many licenses covering cellular wireless SEPs have consistently agreed on the "whole device" price as the appropriate royalty base. That is, when sophisticated industry participants meet at the negotiation table to exchange value for the rights to use cellular SEPs, they nearly uniformly *reject* the approach that Cisco asks this Court to make mandatory on lower courts.

Qualcomm itself has been active as a licensor of cellular IP for more than 20 years. During that time, the overwhelming majority of Qualcomm's hundreds of license agreements have been entered into with device makers and have assessed royalties against the price of the whole

device. This is industry practice, not "Qualcomm practice": a 2010 review of declarations of intended royalty rates by holders of SEPs to the 4G LTE cellular standard found that *every* patent holder that made such a declaration announced a royalty rate for a license to its LTE SEPs that was expressed as a percentage of the price of the final end product.[5] This includes Alcatel-Lucent, Ericsson, Motorola, Nokia, Nokia-Siemens Networks, Nortel, and Qualcomm, as well as newer industry participants Huawei and ZTE. Nor is this some quirk of the cellular industry: a published study of license agreements entered into in a variety of different industries between 1990 and 2012 found that 91 percent of them calculated royalties on the basis of a final end product. *See* Russell L. Parr & Gordon V. Smith, *Intellectual Property: Valuation, Exploitation and Infringement Damages* 115–20 (11th ed. Cum. Supp. 2013).

What Cisco asks is that courts be not only permitted but *required* to ignore this extensive industry practice and precedent when calculating "reasonable royalty" damages. That would be an odd direction

[5] Eric Stasik, *Royalty Rates and Licensing Strategies for Essential Patents on LTE (4G) Telecommunication Standards*, les Nouvelles, at 114 (Sept. 2010), *available at* http://www.investorvillage.com/uploads/82827/files/LESI-Royalty-Rates.pdf.

indeed for the law to take, when attempting to estimate what private parties would have agreed to in a hypothetical negotiation.

It would also be an unwise leap in the dark to adopt such a categorical rule, given that this court has had no opportunity to understand why device-level licensing is so much preferred in a variety of industries, including the cellular industry, and to what extent SEPs in such industries cover inventions that create value throughout whole devices and systems—value far beyond the cost or value of a chip. The Court should not adopt absolute rules that would severely impact other industries based on a narrow record that provides no ability to understand the licensing practices, the technologies, the standards, and the nature and value of essential patents in the wide sweep of industries that would be affected by such a ruling.

II. THERE IS NO OCCASION TO MAKE USE OF THE SSPPU EVIDENTIARY PRINCIPLE ON THE FACTS OF THIS CASE.

Just a few months ago, in *Ericsson*, this Court made clear that selection of the appropriate royalty base for purposes of determining reasonable royalty damages is properly conceptualized as having two distinct parts, one of which is mandatory in all cases and the other of which is not. 773 F.3d at 1226. *First*, there is the "substantive legal rule" that "the ultimate combination of royalty base and royalty rate must reflect the value attributable to the infringing features of the product, and no more". *Id.* This

rule recognizes the necessity of "'apportion[ing] the defendant's profits and the patentee's damages between the patented feature and unpatented features' using 'reliable and tangible' evidence". *Id*. (quoting *Garretson*, 111 U.S. at 121); *see also* 35 U.S.C. § 284 ("[T]he court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer . . . .").

Second, there is a "separate evidentiary principle", the SSPPU methodology, that "assist[s] in reliably implementing the [substantive legal] rule when . . . the *jury* is asked to choose a royalty base as the starting point for calculating a reasonable royalty award". *Ericsson*, 773 F.3d at 1226 (emphasis added). The Federal Circuit has never held that the SSPPU methodology is required for calculation of a reasonable royalty in a bench trial. Indeed, the Court has indicated that the SSPPU methodology may not always be appropriate even when the question of damages is tried to a jury. *See, e.g.*, *Ericsson*, 773 F.3d at 1227 (holding that the district court did not err by allowing expert damages testimony based on licenses using the entire end product as the royalty base).

Nevertheless, this evidentiary tool for *juries* has been reimagined by Cisco and its *amici* as a rigid requirement that must apply to

damages calculations in every case (*see, e.g.*, Apple Br. 11.)—including calculations performed by Article III judges experienced in patent law. For the reasons explained below, *amicus* Qualcomm respectfully suggests that the Court should continue to adhere to its existing flexible, non-absolutist approach.

A. This Court and the Supreme Court Have Carefully Avoided Imposing Rigid and Inflexible Rules for the Calculation of Patent Damages.

Cisco and its *amici* ask this Court to enshrine the SSPPU methodology, for the first time ever, as a substantive "rule" or "requirement" for reasonable royalty calculations in all circumstances. (*See, e.g.*, Cisco Br. 41; Apple Br. 10.) But this Court has repeatedly rejected any such rigid approach to damages. *See, e.g.*, *Mars, Inc. v. Coin Acceptors, Inc.*, 527 F.3d 1359, 1366 (Fed. Cir. 2008) ("The correct measure of damages is a highly case-specific and fact-specific analysis."), *amended on other grounds*, 557 F.3d 1377 (Fed. Cir. 2009); *Hebert v. Lisle Corp.*, 99 F.3d 1109, 1119 (Fed. Cir. 1996) ("The adequacy of the damages measure depends on the circumstances of each case."). Similarly, the Supreme Court has "more than once cautioned that courts should not read into the patent laws limitations and conditions which the legislature has not expressed". *Bilski v. Kappos*, 561 U.S. 593, 602 (2010) (quoting *Diamond v. Diehr*, 450 U.S. 175, 182

(1981)); *see also Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749, 1756 (2014) (courts should not "superimpose[ ] an inflexible framework onto statutory text that is inherently flexible"); *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 419 (2007) ("Helpful insights . . . need not become rigid and mandatory formulas . . . .").

In the case of the royalty base to be used in calculating reasonable royalty damages, this Court has preserved the same spirit of flexibility sufficient to accommodate diverse facts, observing "that an appropriately apportioned royalty award could . . . be fashioned by starting with the entire market value of a multi-component product by, for instance, dramatically reducing the royalty to be applied in those cases". *Ericsson*, 773 F.3d at 1227.

B. The SSPPU Principle Is an Evidentiary Safeguard Designed To Prevent *Jury* Confusion and Has No Application to Bench Trials.

The recently introduced SSPPU methodology is a prophylactic evidentiary principle created only as a rough safeguard against jury confusion—not a substantive legal rule. As such, it cannot be mandatory in the case of a bench trial.

As this Court recognized in *Ericsson*, the SSPPU methodology was devised "to help our jury system reliably implement the substantive

[apportionment] requirement". 773 F.3d at 1226–27. In the 2009 *Cornell* case in which the methodology was first used, then-Chief Judge Rader, sitting by designation, invoked the SSPPU methodology as a safeguard to exclude expert testimony that "would mislead the jury to award damages far in excess of their compensatory purpose". *Cornell University v. Hewlett-Packard Co.*, 609 F. Supp. 2d 279, 287 (N.D.N.Y. 2009). Simply put, when large numbers are flying around, this Court has held that jurors have trouble applying the substantive apportionment rule.[6] In fact, *every* Federal Circuit case involving application of the SSPPU principle has been a jury case. In each such case, the articulated driving force has been potential jury confusion.[7]

By contrast, there is no reason to believe that district court judges are not equipped to understand the rule of apportionment and the mathematical interactions between royalty base and royalty rate when

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[6] *See, e.g.*, *VirnetX, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1327 (Fed. Cir. 2014) ("[R]eliance on the entire market value of the accused products . . . 'cannot help but skew the damages horizon for the jury'". (quoting *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1320 (Fed. Cir. 2011))).

[7] *See, e.g.*, *Ericsson*, 773 F.3d at 1207, 1227; *VirnetX*, 767 F.3d at 1313, 1327; *LaserDynamics, Inc. v. Quanta Computer, Inc.*, 694 F.3d 51, 68 (Fed. Cir. 2012); *Uniloc*, 632 F.3d at 1320; *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1336–39 (Fed. Cir. 2009); *Cornell*, 609 F. Supp. 2d at 287.

performing a reasonable royalty analysis. Trial courts are well able to understand that a reasonable royalty must reflect the value attributable to the patented invention—and that it should be calculated in the way that will best approximate this value. No prophylactic rule designed to protect against basic misunderstandings or miscalculations is required. As the Fifth Circuit (the law of which governs the admission of expert testimony in the present case, *see Ericsson*, 773 F.3d at 1225) has observed, "[I]n a bench trial, the . . . judge can also exclude those improper inferences from his mind in reaching a decision." *Gulf States Utilities Co. v. Ecodyne Corp.*, 635 F.2d 517, 519 (5th Cir. 1981).

The record below well illustrates this fact. After carefully analyzing the proffered damages models, the district judge *rejected* plaintiff CSIRO's damages model for many reasons, but most importantly because CSIRO's expert had not "carefully tie[d] proof of damages to the claimed invention's footprint in the market place", as the law of apportionment requires. (A15–16.) Finding Cisco's damages model likewise insufficient, the district court formulated its own reasonable royalty based on a careful review of the evidence. There is no basis to claim—and, to its credit, Cisco does not assert—that the district court was misled or confused by the royalty base that it selected.

It is telling that not one of the briefs filed by Cisco or its *amici* even mentions in its damages discussion that this was a bench trial, or that every single Federal Circuit decision that has ever invoked the SSPPU approach involved a jury and was motivated by a concern about jury confusion. Only by ignoring the animating purpose of the SSPPU methodology and relevant case law can Cisco and its *amici* claim that a trial judge is *required* to use the SSPPU methodology in order to calculate reasonable royalty damages, without regard to the evidentiary record in the particular case.

C. The SSPPU Methodology Should Not Be Permitted to Overrule or Exclude Valuation Based on Comparable Licenses.

The goal of the "reasonable royalty" damages exercise is to approximate as closely as possible what the plaintiff would have received had the parties negotiated a license in good faith, instead of the defendant embarking on a course of unlicensed infringement. *Rite-Hite*, 56 F.3d at 1554. In other words, the goal is to approximate the true market value of what the patentee has been deprived.

An infringement damages award is a fixed sum of money, not a "rate" or a "base". Identification by a court of a "rate" and "base" is simply a tool, a means for arriving at an award. It is commonly used because it

tracks how private parties commonly structure license agreements, but it will not fit all cases: in some industries, or for some patents, a per-unit flat-rate royalty may best approximate a "reasonable royalty". Where a "rate times base" calculation is appropriate, this Court has instructed (as noted above), that "an appropriately apportioned royalty award could . . . be fashioned by starting with the entire market value of a multi-component product—by, for instance, dramatically reducing the royalty rate to be applied in those cases". *Ericsson*, 773 F.3d at 1227; *see also Lucent*, 580 F.3d at 1339 ("The license agreements . . . highlight how sophisticated parties routinely enter into license agreements that base the value of the patented inventions as a percentage of the commercial products' sales price. There is nothing inherently wrong with using the market value of the entire product . . . so long as the multiplier [*i.e.*, the royalty rate] accounts for the proportion of the base represented by the infringing component or feature.").

Where comparable licenses for the patent-in-suit (or comparable patents) exist, the terms of these licenses can leapfrog over manipulable methodologies and rough guesses to give *direct* evidence of the economic value of the patent as determined by arm's-length, market-based negotiations. Whether those licenses apply a low royalty rate to a large royalty base, or a higher royalty rate to a smaller royalty base, the key point

is that they will identify *both* factors, and thus the value which is the product of those two factors.

For this reason, the Supreme Court and this Court have consistently recognized comparable licenses as the most "relevant and reliable" evidence to be considered in setting "reasonable royalty" damages. *Ericsson*, 580 F.3d at 1227–28; *see also Birdsall v. Coolidge*, 93 U.S. 64, 70 (1876) ("Evidence of an established royalty will undoubtedly furnish the true measure of damages in an action at law"); *Rite-Hite*, 56 F.3d at 1554 ("The [reasonable] royalty may be based upon an established royalty if there is one, or if not, upon the hypothetical negotiations between plaintiff and defendant.").

The radical nature of the argument now advanced by Cisco and its *amici* is most starkly revealed by their attempt to use the SSPPU methodology as a weapon by which to *exclude* from the court's consideration all evidence of actual comparable licenses—the best evidence under this Court's precedents. For example, Cisco contends that "[a] court cannot sidestep [the reliance on the SSPPU methodology in] *VirnetX*, *LaserDynamics*, *Uniloc*, and *Lucent* . . . simply because the patentee

'prefers' to license more expensive end products". (Cisco Br. 45.)[8] That is, Cisco would have the trial court ignore prior comparable licenses if they used a royalty base broader than the SSPPU. Likewise, Intel argues that "to the extent the patentee's licensing practices or precedents depart from this Court's precedents [on SSPPU], they should not be credited in a damages analysis". (Intel Br. 24–25.)

But as noted above, in many industries this would be to exclude *almost all* real-world historical licenses from consideration, because the "whole device price" is by far the most commonly used royalty base. (*See supra* Section I.C.) Such a radical exclusion could have nothing to do with a serious effort to ascertain market value. Instead, Cisco and *amici* are asking this Court to perform a vanishing act, making genuine market-based evidence of the value of infringed patents disappear, in order to clear the

[8] In these cases cited by Cisco, no party relied on comparable licenses as evidence of value. Accordingly, these courts were obliged to look to other methodologies to estimate market value, and used the SSPPU methodology as part of their calculations. *See VirnetX*, 767 F.3d at 1328–29 (expert did not rely on comparable licenses in determining royalty base); *LaserDynamics*, 694 F.3d at 57–58 (all comparable licenses provided for lump-sum payments, not running royalties); *Uniloc*, 632 F.3d 1318–21 (expert did not rely on comparable licenses in applying "entire market value rule"); *Lucent*, 580 F.3d at 1338 (expert "didn't see any Microsoft licenses on Outlook" when calculating royalty based on the price of the software).

way for defendants to argue for lower-than-market royalties based on theories and speculation.

However, precisely this counter-factual approach was rejected last December in *Ericsson v. D-Link*. There, the district court had admitted "comparable license" testimony by Ericsson's damages expert based on "licenses which were themselves tied to the entire value of the licensed products". 773 F.3d at 1225. On appeal defendants argued that evidence of these past licenses should have been excluded, and only testimony based on use of the asserted SSPPU as the royalty base allowed, as a basis for the reasonable royalty calculation. *Id*. In its opinion, this Court held "that the district court did not err by failing to exercise its discretion . . . to exclude the license testimony at issue", regardless of the royalty base employed in those licenses, because "[a]n established royalty is usually the best measure of a 'reasonable' royalty". 773 F.3d at 1227 (quoting *Monsanto Co. v. McFarling*, 488 F.3d 973, 978 (Fed. Cir. 2007)). In making this determination, the Court recognized that "[m]aking real world, relevant licenses inadmissible" on the grounds that they may not always adopt an SSPPU approach "would often make it impossible for a patentee to resort to license-based evidence". *Id*. at 1227–28.

In the present case, the District Court below ultimately found that no comparable licenses were available on the record before it, and *amicus* Qualcomm takes no position here on that factual question. Qualcomm does urge, however, that this Court should not adopt any rule, whether substantive or nominally evidentiary, which would have the effect of blinding courts to market-determined valuations of patents by excluding most market-negotiated licenses.

III. THERE IS NO EVIDENCE OF A ROYALTY STACKING PROBLEM.

As far as *amicus* Qualcomm is aware, no court has ever been presented with evidence of any actual "royalty stacking" problem in an SEP damages case. Here, the sole mention of royalty stacking in the district court's opinion is a reference to the analysis of *CSIRO's* damages expert, who found *no* evidence at all of royalty stacking. (A13.)

Cisco and its *amici* point to no other evidence in the record concerning royalty stacking, but nevertheless invoke the specter of hypothetical royalty stacking to demand lower damages. For example, Cisco and its *amici* suggest that all 3,000 SEPs in the 802.11n standard would require the same royalty awarded here, without accounting for the relative value of those patents or the fact that many SEPs are never asserted or licensed by their owners. (*See, e.g.*, Cisco Br. 51; Intel Br. 28–29.)

Indeed, Cisco goes so far as to cite this Court's opinion in *Ericsson* as establishing the existence of a "known royalty stack". (Cisco Br. 51.) But this Court in *Ericsson* explicitly held that D-Link (and Intel) "*failed* to provide any evidence of actual royalty stacking". *Ericsson*, 773 F.3d at 1234 (emphasis added). The excerpt from *Ericsson* that Cisco cites for its "known royalty stack" claim merely states that SSOs such as IEEE ask their members for RAND commitments in order to avoid the *hypothetical* risk of royalty stacking. *Id.* at 1209.

Intel, meanwhile, argues that the royalty set by the district court "implies that a royalty stack on a Wi-Fi chip . . . would be ***thousands*** of dollars, and it would make the []'069 patent worth ***billions*** of dollars", without providing a single citation to support such figures. (Intel Br. 4.) Similarly, Apple cites a paper not in evidence—and based on a methodology explicitly rejected by the courts in *Ericsson*[9]—to argue that *all* SEPs cause royalty stacking concerns. (Apple Br. 23–25.)

[9] The paper Apple references relies primarily on licensing offers, rather than actual licenses, to establish the existence of a "stack". This is precisely the sort of "general argument" that this Court rejected in *Ericsson*. 773 F.3d at 1234. The paper relies on licensing offers even in the face of objective, realistic data provided in the paper itself. *See* Ann Armstrong, Joseph J. Mueller & Timothy D. Syrett, *The Smartphone Royalty Stack: Surveying Royalty Demands for the Components Within Modern Smartphones* at 25 (May 29, 2014) (working paper), *available at* http://tinyurl.com/SmartphoneRoyaltyStack (calculating a royalty rate for

This Court recently rejected these same hyperbolic arguments, concluding that "[i]n deciding whether to instruct the jury on patent hold-up and royalty stacking, again, we emphasize that the district court must consider the *evidence* on the record before it". *Ericsson*, 773 F.3d at 1234 (emphasis added). Accordingly, this Court held that "the district court need not instruct the jury on hold-up or stacking unless the accused infringer presents actual evidence of hold-up or stacking". *Id.* In *Ericsson*, as here, the infringer's expert "never even attempted to determine the actual amount of royalties Defendants are currently paying for 802.11 patents". *Id*.

There is no occasion to revisit this very recent ruling here.

CONCLUSION

For the reasons stated above, *amicus* Qualcomm respectfully submits that the Court should not adopt a rule requiring the use of the "smallest salable patent-practicing unit" as the royalty base in calculating "reasonable royalty" damages for infringement of SEPs. Likewise, the Court should not abandon its recent precedent requiring evidence of an actual "royalty stack" affecting the infringing product as a precondition for

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Innovatio IP Ventures' 802.11 patents as $7.20 per product, despite that a court awarded royalties of $0.0956 per chip).

permitting "royalty stacking" to be considered as a factor relevant to the fixing of a "reasonable royalty".

Dated: April 13, 2015

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on April 13, 2015, I electronically filed a copy of the Brief of *Amicus Curiae* Qualcomm Incorporated in Support of Affirmance with the Clerk of the Court using the Court's CM/ECF system, which will automatically send email notification of such filing to the following counsel of record:

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CERTIFICATE OF COMPLIANCE

Pursuant to Federal Rules of Appellate Procedure 29(c)(7) and 32(a)(7)(C), I hereby certify:

1. this brief complies with the type-volume limitation set forth in Rules 29(d) and 32(a)(7)(B) of the Federal Rules of Appellate Procedure in that this brief contains 6,796 words, excluding those parts of the brief exempted from the type-volume calculation by Federal Rule of Appellate Procedure 32(a)(7)(B)(iii) and Rule 32(b) of this Court's Rules; and
2. this brief complies with the typeface and type-style requirements of Rules 32(a)(5) and 32(a)(6) of the Federal Rules of Appellate Procedure in that this brief is formatted in Microsoft Word 2007 using a proportionally spaced typeface in 14-point Times New Roman font.

Dated: April 13, 2015

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